Community Update for the Imperial Oil/Champion Chemicals Superfund Site

Community Update **November 2008**

CLEANUP HISTORY

- Since discovery of the site, EPA has excavated and disposed of 660 cubic yards of highly contaminated PCB-containing material from the former on-site waste pile.
- To date, nearly 25,000 gallons of PCB-contaminated oil have been recovered from extraction wells that EPA installed in 1991.
- In 1998, EPA removed 6,488 cubic yards of contaminated soil from four nearby affected residences.
- In 2004 NJDEP excavated over 18,000 cubic yards of contaminated soil and sediment in Birch Swamp Brook and conducted the cleanup of contaminated soil found on two residential properties located adjacent to Birch Swamp Brook.
- EPA intends to complete the next phase of cleanup work, to include excavation and off-site disposal of contaminated soil and remaining floating product and the restoration of affected wetlands as soon as funding becomes available.

BACKGROUND

The 15-acre Imperial Oil Co./Champion Chemicals site consisted of six production, storage, and maintenance buildings and 56 above-ground storage tanks. Imperial Oil Co. blended oil on the site, which was leased from Champion Chemicals. Several companies have operated at the site in the past. One, a reprocessor of waste oil, may have discharged wastes to a nearby stream. Another company which operated at the site produced arsenical pesticides. The site formerly contained a waste pile contaminated with polychlorinated biphenyls (PCBs). The former area of site operations is protected by a fence that completely encloses it. A fire pond, located in the northeastern corner of the property line, has been contaminated. A small stream which flows from the pond, Birch Swamp Brook, eventually flows into Lake Lefferts. Samples collected from Lake Lefferts during the remedial investigation indicated that the lake is not significantly impacted by the contaminants found at the Imperial Oil site. Also located around the site are a wetland and wooded area.

CLEANUP APPROACH

This site is being addressed by immediate actions and three long-term remedial phases focusing on cleanup of off-site soil and sediment contamination, on-site soil contamination, and ground water contamination.

IMMEDIATE ACTIONS

In 1991, EPA excavated and disposed of an on-site waste filter clay pile pursuant to a removal action. An impermeable tarp was placed over the remaining waste filter clay material to prevent the infiltration of rainwater and human contact. The waste filter clay material was contaminated with volatile organic compounds (VOCs), PCBs, metals, and petroleum hydrocarbons. In 1991, EPA installed and began operation of an oil/water treatment system to remove an oily layer or "floating product" from the surface of the ground water beneath the site. The New Jersey Department of Environmental Protection

RECENT EVENTS

In 2008 EPA completed the demolition of six on-site structures and the above-ground tank farm consisting of 58 tanks. Only a small building containing the surface run-off treatment system remains. Over 900 tons of concrete were recycled , 50 tons of debris disposed of, 60,000 gallons of oil recycled, 40,000 pounds of PCB Oil/Sludge and 10,000 gallons of hazardous liquid were disposed of. Approximately, 1,000,000 gallons of stormwater were treated on-site.

UPCOMING WORK

- EPA plans to collect a round of groundwater quality samples in December 2008.
- Routine maintenance and site security will continue.

SITE INFORMATION

- The site was discovered and listed on the National Priorities List in 1983. Since then both the EPA and the NJDEP have made significant progress in its remediation.
- From 1987 to 2006, NJDEP was the lead cleanup agency for remediation work at the site. In late 2006, EPA became the lead agency for the site.

(NJDEP) has periodically pumped the contaminated floating product from the surface of the groundwater beneath the process area. EPA excavated and removed several buried drums that were discovered during the installation of the floating product recovery and treatment system. In 1997, EPA posted warning signs on foot and bicycle trails near the site to keep trespassers away and a tarp covering the remaining waste filter clay pile was replaced to prevent any human contact with the contaminants and to limit the migration of the contamination. In April 2002, EPA excavated and disposed of a 25 foot by 25 foot area of soil containing a tar-like material discovered outside of the fenced area. The presence of elevated levels of PCBs and lead in this material may have presented a dermal contact threat to trespassers. In August 2007, EPA arranged for 24-hour security at the site, given that Imperial Oil declared bankruptcy and ceased operations at the site during July 2007.

GROUNDWATER INVESTIGATIONS AND ACTIONS

The ground water is contaminated with volatile organic compounds (VOCs), PCBs, metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, and phthalates, a plastics by-product. Surface water contained arsenic. Potential health threats include direct contact, accidental ingestion, or inhalation of airborne contaminated dust, groundwater, or soil. Wetland areas have also been affected by site contaminants. In September 1992, a Record of Decision was issued for Operable Unit 2 (OU2) to address the remediation of contaminated ground water. The remedy calls for the extraction of the contaminated ground water, treatment of the extracted ground water via precipitation and carbon adsorption, and discharge of the treated water to Birch Swamp Brook. The remedy also includes the continuation of the floating product extraction and treatment system. The groundwater is not currently used by nearby residences. A multi-year evaluation of historic groundwater quality indicates that the down-gradient extent of groundwater contamination is contained in the immediate vicinity of the site and has not spread over time. In addition, a well restriction area established by NJDEP in 1998 restricts the use of groundwater beneath and down-gradient of the site. EPA continues to periodically monitor the groundwater wells in the area. The next round of groundwater quality monitoring is scheduled to take place in December 2008. The implementation of the groundwater remedy has been deferred until the soil remedy has been initiated.

CONTACT INFORMATION

Public participation is essential to the success of the Superfund Program and EPA. If you have any questions regarding EPA's cleanup activities at this site, please contact Farnaz Saghafi, EPA Remedial Project Manager, at **212-637-4408** or email at **Saghafi.farnaz@epa.gov**. You can also contact Patricia Seppi, EPA's Community Involvement Coordinator, at **212-637-3679** or email at **seppi.pat@epa.gov**. You can also call EPA toll free at **1-877-494-1308**.

SOIL INVESTIGATIONS AND ACTIONS

Sediments in the fire pond and Birch Swamp Brook contained numerous contaminants including arsenic, lead, phthalates, and PCBs. The soil on the plant property is contaminated with heavy metals including chromium, lead, and arsenic, as well as PCBs. NJDEP completed a remedial investigation to determine the nature and extent of the soil contamination located in the vicinity of the Imperial Oil facility, which is referred to as Operable Unit 3 (OU3). A Record of Decision for OU3 was issued in September 1999. The OU3 remedy calls for the excavation and off-site disposal of contaminated soil, removal and off-site incineration of floating product, dismantling of site buildings and tank farms, as necessary to complete excavation of contaminated soil and removal of floating product, and restoration of wetlands affected by cleanup activities. Consistent with the OU3 remedy, EPA dismantled an on-site abandoned masonry building which was in danger of collapse during the fall of 2000. From 1999 through 2005, NJDEP conducted design work for OU3, including the performance of pre-design surface and subsurface soil sampling events. In late 2006, EPA became the lead agency for the site. EPA is currently completing design of the OU3 remedy. In January 2008, EPA initiated the removal of on-site tanks and tank contents, consistent with the OU3 remedy. Tank removal at the site was completed in August 2008, along with the demolition of all the buildings on site except for the small structure that houses the run-off treatment system. The next phase of cleanup work, which entails the excavation and off-site disposal of contaminated soil and remaining floating product and the restoration of affected wetlands, is now ready to begin. It is EPA's intention to conduct this portion of the remediation as soon as funding becomes available.

OFF-SITE CONTAMINATION ACTIONS

In 1990, EPA selected a remedy for operable unit one (OU1) involving off-site contamination. The remedy called for excavation and off-site disposal of contaminated soils from wetland areas located north of the Imperial facility, restoration of affected wetlands, and installation of a fence to control access to the contaminated soil areas. The design and implementation of the cleanup was managed by NJDEP. In 1991, EPA installed a fence around the off-site contaminated area. Additional sampling of nearby residential properties, wetlands and surface waters including Lake Lefferts was performed as part of the design effort. The additional sampling demonstrated

that arsenic and lead were found in high concentrations on nearby residential properties, in the wetlands, and in Birch Swamp Brook. In 1996, the U.S. Geological Survey completed an investigation into the sources of elevated arsenic contamination in soil in the vicinity of the site. The investigation found elevated concentrations of site-related arsenic in the soils on four residential properties. In September 1997, EPA issued an Explanation of Significant Differences (ESD) to explain changes made to the OU1 remedy. In addition to the remediation of the originally identified off-site areas, the ESD provided for the excavation and off-site disposal of contaminated soils found on the residential properties, and the installation of engineering controls in the areas surrounding the fire pond, the wetlands, and Birch Swamp Brook to prevent the recontamination of the off-site areas. In March 1998, EPA initiated the excavation and off-site disposal of the contaminated soils on the residential properties. In August 1998, EPA completed the excavation work and restored the properties. In July 2002, EPA issued a second ESD to explain additional changes made to the OU1 remedy. The second ESD provided for the cleanup of sediment in the Birch Swamp Brook from the Fire Pond to Texas Road, and the cleanup of contaminated soil found on two residential properties located adjacent to the Birch Swamp Brook. The OU1 remedy was implemented in 2004 by NJDEP.

UPCOMING WORK

EPA will be collecting a round of groundwater samples from monitoring wells and piezometers in and around the site in December 2008. The operation of the surface run-off treatment system and the floating product collection system will continue on a regular basis. Site maintenance and security will be performed routinely. EPA will be conducting a public information session in January/February 2009 to update the area residents about status of the remediation work at the site.